

Do Maladaptive Cognitions Mediate the Relationship between Perceived Parental
Influences and Eating Behavior Among College Women?

A Senior Honors Thesis

Presented in Partial Fulfillment of the Requirements for graduation *with distinction* in
Psychology in the undergraduate colleges of The Ohio State University

by

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March 2008

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Abstract

Studies have shown that disordered eating is usually accompanied by other psychological disturbances that involve maladaptive cognitions such as perfectionism, depressive symptomatology, and negative affect. Evidence has been presented linking parental influences to these other maladaptive cognitions, showing a possible mediational relationship through maladaptive cognitions between parental influences and eating behavior. The present study is a preliminary investigation of this hypothesis. Specifically, parental influences to personality (i.e., attachment avoidance and anxiety) and eating behavior (i.e., family food rules) were expected to predict maladaptive cognitions (i.e., depression, negative affect, and maladaptive perfectionism) which were then expected to predict disordered eating. Among 107 women, all three parental influences predicted at least form of maladaptive cognitions, with attachment anxiety predicting all three. Depression and maladaptive perfectionism, in turn, predicted disordered eating. Implications for therapy to include parental influences for eating disordered clients are discussed.

Do Maladaptive Cognitions Mediate the Relationship between Perceived Parental Influences and Eating Behavior Among College Women?

Eating disorders are often associated with other various psychological disturbances; more than likely, this is due to an eating disorder's function as a coping mechanism for various problems (Bell, 1999). Likely, diagnosis of an eating disorder will uncover a host of problems—depression, anxiety disorders, and possible personality disorders to name a few—that need to be treated concurrently with the eating disorder in question (Bell, 1999). Also, problems between the eating disordered client and others around them come into play. As a result of their lack of effective social functioning, which may be due in part to several psychological problems going on in the eating disordered client's mind at once, interpersonal problems (e.g., enmeshed or dependent relationships) and self-esteem improvement are quickly becoming hot-button topics in eating disorder research (Bell, 1999).

General Eating Psychopathology

Often, it is difficult to observe the early signs of psychopathology that are associated with eating disordered clients (Corcos *et al.*, 2000). It has also been shown that the early years of adolescence play an important role in the formation of eating disorders; this is the time of life that probably needs the most attention in clinical settings in order to fully grasp how and why certain types of psychopathology are formed (Corcos *et al.*, 2000). Early adolescence is when hormonal changes—as well as physical alterations—first begin to take place. It is how individuals cognitively handle these changes that may or may not contribute to maladaptive beliefs that may lead to eating disorders. Body image, self-esteem, and overall mood come into play. If any of these

concepts have negative thoughts behind them, it places the individual at risk for an eating disorder (Corcos *et al.*, 2000). Implications for this study include aiming eating disorder prevention efforts to pre-pubertal adolescents.

In addition to various psychological problems associated with eating disorders, there are also certain beliefs held by eating disordered clients—that may lead to or maintain the aforementioned psychological problems—that should be addressed in therapy. These beliefs, often termed maladaptive core beliefs, are believed to be formed early in childhood and are a major factor in overall personality formation (Dingemans, Spinhoven, & van Furth, 2006). Examples of these maladaptive beliefs include fears of abandonment resulting from insecure attachment, or being vulnerable to being harmed by significant others (Jones, Harris, & Leung, 2005). Previous studies have shown that eating disordered clients generally have more of these maladaptive beliefs than their healthy counterparts (see Dingemans *et al.*, 2006). In a study done by Dingemans *et al.* (2006), it was shown that eating disordered clients that engaged in compensatory behaviors—such as purging and misusing laxatives—are more likely to have a larger set of maladaptive core beliefs than those patients who do not engage in such behaviors, and are most likely to need more intense forms of therapy. Also, in an experiment done by Cooper, Rose, and Turner (2006), it was found that these core maladaptive beliefs were highly associated with symptoms of depression, but not independently linked to the eating disorder symptoms themselves. This strengthens depression's hypothesized role in the acquisition/maintenance of eating disorder, as opposed to the beliefs being the “cause” of the disorder itself.

A study by Wonderlich and Swift (1990) examined the role of depressive symptoms within the families of eating disordered patients, and, more specifically, the possible correlation between parental relationships and depressive symptoms. They found that the participants with eating disorders were more likely to develop these symptoms when their family history revealed hostile parental relationships. They attribute this to possible distorted perception on the part of the participant, or possibly being how depression-related communications generally go in families with eating disordered patients.

It has also been suggested that parental roles may play a part in the formation of core beliefs. Jones, Harris, and Leung (2005) found that this was the case, but found only negative rearing practices—involving rejection, for example—to be a factor in the eventual formation of maladaptive eating behaviors. Another study—this time of parental bonding with offspring—has been done to examine how parental factors may affect core beliefs. Leung, Thomas, and Waller (2000) found that both anorexics and bulimics could remember larger amounts of unhealthy parental bonding than the control group. More specifically, it was stated that the findings in this study imply that low levels of parental care may contribute to the formation of core beliefs in eating disordered women. This is explained in a model set forth as follows: anorexics feel there is something wrong with them, due to a lack of maternal care, so they formulate a set of unrealistically high standards for themselves (i.e., during a lack of paternal care, they develop the belief that relationships in general are doomed to end, no matter what the circumstance.) In contrast, over-protection by parents was associated with lower levels of these core beliefs. These studies highlight the possible role of attachment avoidance and anxiety in

the development of disordered eating, and maladaptive core beliefs (e.g., depression, negative affect, and maladaptive perfectionism may mediate (i.e., account for) this link.

Some personality factors and their possible implications in eating disorder symptomatology have been examined. Miller, Schmidt, Vaillancourt, McDougall, and Laliberte (2006) looked at neuroticism (i.e., which is highly associated with depression, negative affect, and maladaptive perfectionism) and introversion and how this combination could provoke disordered eating in a group of non-clinical undergraduate women. Neuroticism was highly correlated to disordered eating; when examined even further—since evidence from previous studies has shown that neuroticism is related to almost all psychopathologies—it was found that women who are not only neurotic but who are low on sociability (i.e., high on introversion) are particularly susceptible to developing disordered eating.

Another personality factor recently studied for its relationship to disordered eating is self-efficacy, the belief that if one can believe that he/she can do something, than he/she will. In a group of non-clinical adult male and females, eating self-efficacy—the belief that one can control one's own eating habits—was explored (Berman, 2006). Results showed that while eating self-efficacy did not predict perfectionism and did not decrease when many food choices were available, eating self-efficacy plummeted when negative affect had to be dealt with, elevating scores on the EDI-2 Drive for Thinness and Bulimia scales (Berman, 2006). This follows previous research that suggests that negative emotions may trigger eating disturbances.

Cognition patterns—not the specific core beliefs but how the beliefs are formed within the mind—are often studied to see if they play a role in the

acquisition/maintenance of eating disorders. Shafran and Robinson (2004) examined thought-shape fusion, a term used to describe an overall cognitive distortion within the mind (previously studied examples include misinterpreting bodily sensations in panic disordered patients; the thinking errors involved with depression; and distorted thinking involved with eating disorders). They found that eating disordered patients had more of this mindset than did non-clinical individuals. Another interesting finding was that eating disorder psychopathology was directly proportional to the level of thought-shape fusion. So, the more severe the eating disorder, the more distorted cognitions are. Suggested therapies would be Cognitive Analytical Therapy or maybe Cognitive Behavioral Therapy, in order to change the mindset of the patient.

Much of the research up to this point has demonstrated that there are often differences in the overall functioning between anorexics—and those in its subtypes—bulimics, and controls/healthy, non-clinical subjects. It may be possible that the cognitions of each of these groups are different as well. Turner and Cooper (2002) examined cognitions and their origins in three groups of females: anorexics, dieters, and controls. It had been found in previous research that eating disordered patients generally had negative thoughts of the self, and these thoughts were related to negative experiences. In this particular experiment, these results of negativity were replicated. Anorexics had higher levels of negative thoughts about themselves than did both non-clinical groups, and, once again, these thoughts were linked to negative earlier experiences.

Cooper, Wells, and Todd (2004) examined the cognitions of bulimic individuals. They show a summary of the original, basic model of bulimic cognition. First, there is

bingeing that is caused by thoughts of having no control. Then, the self is evaluated in a negative manner, which triggers negative thoughts about eating, while at the same time the act of eating triggers the physiological symptom of satiety. Once these cognitions and physiological effects overcome the person at the same time, purging is likely to occur. However, it is stated that the interaction of positive and negative cognitions may also play a part in anorexics. For example, an anorexic feeling 'no control', eating a little, then feeling guilty, after which the person might not eat for a day.

Familial/Childhood Factors Contributing to Psychopathology

Various forms of eating psychopathology—and the disorders that may be linked to them—have been examined; correlates and possible causes of the eating psychopathology are to be examined next. Professionals have wondered if those we associate with on a daily basis—friends, other peers, and even family—may influence the maladaptive thought processes so often linked to eating disorders. Miller-Day and Marks (2006) studied parental communication, individual and parental perfectionism, and how these variables possibly contribute to disordered eating patterns. They predicted that parent-offspring communication would be especially influential. This was the case; however, the only significant finding in this area was with father-offspring communication. The relationship between mothers and offspring eating behaviors has long been examined, but in regards to information exchange, fathers are seen as more positively related to maladaptive eating behaviors in the offspring due to their conformist or traditional tendencies. This tendency is in contrast to the conversation orientation of mothers. In the area of perfectionism, it was inferred that—since high perfectionism levels were positively associated with maladaptive eating patterns while there were low

levels of personal control—the maladaptive eating behaviors serve as a means of escaping feelings of inadequacy. Perfectionism levels in both parents also were highly correlated to their children’s maladaptive eating patterns. It may be implied, therefore, that perfectionism and a loss of control in the individual, paired with constant compliance to the father’s ideas/ideals, may teach individuals to conform to what the media feels is the appropriate body image or body type.

Emotions—such as anger, anxiety, etc.—have long been associated with eating disorders, and parental attitudes have been shown to impact eating behaviors; it is wondered whether or not parental attitudes have an effect on childhood emotions. One seldomly explored area is invalidating childhood environments and the impacts that they may have on children’s eating patterns. A study done in 2007 by Mountford, Corstorphine, Tomlinson, and Waller sought to investigate this very idea. They studied eating disordered and non eating disordered women using a self-report measure to find to what degree the women’s parents responded to their emotions during childhood. It was found that having an invalidating experience during childhood, one where emotions were discarded and/or ignored, caused the women to later avoid their own emotions as part of a distress tolerance strategy. In particular, it was found that paternal invalidation was the most important—a father who ignores his children’s emotions is likely to contribute to an eventual eating disorder, with distress intolerance being the mediating factor. Again, it is shown that the role of a father is crucial to study when examining how an eating disorder is acquired and/or maintained.

Laliberte, Boland, and Leichner (1999) sought out to find how the family climate might contribute to overall psychopathology and possible eating disorders. They found

that it is possible for family members to place great importance on appearance, stressing looking good socially and physically. While this may be the case, another hypothesis is offered. Eating disordered patients do often report high levels of family achievement/perfectionism, but it may be that the eating disorder distorts the affected individual's perception of the family. In other words, the individual in question might be hypersensitive to the family's values toward weight and body image due to the individual's preoccupation with these topics. In Laliberte *et al.*'s (1999) study, however, mothers shared some of the perceptions that the affected individual reported; it may be inferred from this that perceptions of familial interaction may not be a product of one member's distorted perception. Young, Clopton, and Bleckley (2004) did a similar study, in which they examined familial pressure to be thin, and individual perfectionism and low self-esteem as contributors to bulimic behaviors (e.g., binge eating and purging). They also found that pressure from the family—as well as criticism from parents and maladaptive eating behaviors being modeled by other family members—were possible predictors of bulimic behaviors.

Eating disordered clients' views on their own families may shed some light on a possible contributing factor to eating psychopathology. Bulimics and anorexics seem to have a set of beliefs about their family's functioning. Most bulimics report more conflict and less nurturance, while anorexics see stability, cohesiveness, and no deficit in nurturance (Claes, Vandereycken, & Vertommen, 2004; Karwautz *et al.*, 2002); however, anorexics that engaged in bingeing/purging reported much of the same family environment that bulimics tend to (Claes *et al.*, 2004). This study also viewed another variable within eating disorders: self-mutilation. Self-mutilating eating disordered

patients were found to have a sense of loss, in that they seemed to be varying patterns of warmth, and emotional estrangement between them and their parents. This may give therapists an idea of how much family therapy is needed for a self-mutilating eating disordered patient.

Early life experiences may contribute to eventual eating disorder psychopathology. These experiences involve attachments to others during early childhood; clinical and non-clinical studies have shown that eating disorder clients report high levels of unpleasant interactions with their attachment figures during childhood (Troisi, Massaroni, & Cuzzolaro, 2005). Furthermore, if an abnormal attachment style—anxious or avoidant attachment, caused by the aforementioned interaction, for instance continues through adolescence, it may eventually lead to an insecure attachment style. This maladaptive type of interacting with others—and its accompanying anxiety—can aid in the acquisition and maintenance of eating disorders. Future research could focus on the specific relationships that contribute to the insecure attachment style.

Other parental practices, such as food regulation, may have implications in the field of eating disorder research. Fisher and Birch (2000) found that parental restriction of particular foods increased the desire in young girls towards those foods. When parents increase attention to food by restricting it, they end up encouraging the eating behavior that they wanted to decrease. In this instance, partaking in foods that are “off-limits” is linked to parental dissatisfaction. Because of this, they will be in constant conflict—they will be going against what their parents want, and they will be unable to develop self-control in the realm of eating. It might be inferred that due to increased desire of perceived “bad” foods and the lack of self-control, a young girl may be at risk for a

possible binge eating disorder, which may lead to compensatory behaviors like purging, and eventually the development of bulimia. However, in another study done by Edmunds and Hill (1999), it was found that girls who had more restrictions on eating behaviors actually became more restrictive on themselves, often fasting or skipping meals—which could contribute to Anorexia Nervosa, Bulimia Nervosa, or Binge-Eating Disorder—and reported that the parental restriction came as a result of initial overeating. As with the Fisher and Birch (2000) study, it is shown that parents can potentially play a huge role in the feeding behaviors of children.

Puhl and Schwartz (2003) found also that rules about food have long-lasting impacts on children. They studied adults who recalled rules that had been imposed during childhood; it was found that those who had problems with food restraint and bingeing recalled more food-related rules that their parents had used to control behavior with (e.g., rules where food was a reward for behavior or a lack of food was used to signify punishment). Pressuring children to always “clean their plate” and to finish foods they do not like has found to be counterproductive in the lives of children (Galloway, Fiorito, Francis, & Birch, 2006). In this study, it was found that pressuring children to eat did not increase intake, and in fact, decrease intake and produced unconstructive reactions towards foods. Results also showed that the more a parent used pressure towards eating with their children, the more a child refused to eat, and then the parents heightened the pressure; it was just a cyclical interaction, where more pressure made the situation worse.

It is often wondered if one parent may have more influence on eating disordered participants than the other. Francis and Birch (2005) sought out to examine the role of

mothers, who, in previous studies, have been found to go to great lengths to regulate their children's eating practices if they themselves were preoccupied with weight. Also, perceived pressure from parents to lose weight has been associated with children's restrained eating behaviors (Francis & Birch, 2005). They found, in their present study, that mothers who were preoccupied with eating and weight and who were trying to lose weight often encouraged their daughters to do the same, thereby encouraging restrained eating behaviors. In cases such as these, mothers may need to engage in therapy along with their young daughters in order to break the maladaptive behavioral cycle that could lead to serious eating disorders.

Taking it a step further, some researchers have looked at families in which the mothers have eating disorders. It is wondered if there is any type of special influence that these mothers may have on their children. After studying eating disordered mothers as well as non eating disordered mothers with young children, Agras, Hammer, and McNicholas (1997) found that the children of eating disordered mothers tended to take longer when eating, and also had higher rates of vomiting—this result being the opposite for the children of non eating disordered mothers. They found no evidence for an overall familial influence on eating disorder symptomatology within the children; rather, their results showed specific risk factors within the family that could contribute to maladaptive eating behaviors. Evidence within the Park, Senior, and Stein (2003) literature review replicates such findings; they found that children who had eating disordered mothers were at a heightened risk for various types of disturbances. It was seen that, while eating disordered mothers may hold some control over the overall parenting style, their control seems to be in specific areas of the child's life, mainly dealing with growth, body shape,

weight, and feeding concerns. In addition, Stice, Agras, and Hammer (1999) found that maternal body dissatisfaction, hunger, and bulimic symptoms not only encouraged secretive eating in children, but may lead to children's internalization of the "ideal" body standard, thereby encouraging them to engage in the same maladaptive behaviors.

How obese and normal-weight children view food may also help professionals understand eating disordered patients. One tactic for thinking about food is not doing it at all—obese children who are trying to lose weight or normal-weight children who cannot partake of a certain food may engage in thought suppression to help them eat less. Soetens and Braet (2006) examined whether or not this suppression had any adverse effects on the children. They found that the obese children did not have higher levels of food-related thoughts, but that they had higher levels of disturbance caused by the thoughts they did have when compared to normal-weight children. Obese children were then put in an awkward position—with this heightened disturbance, they were placed at a higher risk for entering the eating disorder cycle. They were more likely to binge after having thought disturbances, and later feel bad after the binge, and theoretically engage in compensatory behaviors like purging or using laxatives.

Peer and Social Influences

Other childhood factors may ultimately contribute to eating disordered symptomatology and behaviors. The usual influences involve peers, the media, even family, who may contribute to negative body image (Ricciardelli & McCabe, 2001), but other influences have been found. Wonderlich *et al.* (2001) examined childhood sexual abuse, and the immediate resulting factors that may lead to eating disorders. Their findings showed that there are several possible pathways between the abuse and disturbed

eating—in particular, drug usage and borderline personality disorder. These results suggest that sexual abuse may cause a string of impulsivity problems—including in the area of eating behavior—that may lead to disordered eating. Likewise, Kent and Waller (2000) found that eating disorders are linked not only with sexual abuse, but childhood emotional abuse (CEA) as well. With studying CEA, the most important finding was a significant lowering of self-esteem levels, a factor often linked to eating disorders.

Troop and Bifulco (2002) studied peer and social influences on eating disorders. They focused primarily on certain factors such as loneliness and shyness that were given during self-report measures. It was found that anorexics and bulimics did not differ from non-clinical individuals on any of these variables, but it was the anorexics that engaged in bingeing and purging that had high levels of loneliness, shyness, and inferiority. These variables were also found to not come into play into adolescence. It may be concluded that social problems that arise during adolescence may lead to this special form of anorexia.

Summary

In the present review of eating disorder literature, the various forms of psychopathology associated with disordered eating have been reviewed. Depression, negative affect, and maladaptive perfectionism all been linked to disordered eating. Many possible familial contributors emerging from childhood of anorexia (and its subtypes) and bulimia have been found. Dysfunctional family environments—or those just perceived by the client to be so— include attachment avoidance and anxiety and the presence of family food rules. These dysfunctional environments have been shown to be detrimental to self-esteem, body image, and healthy emotional functioning, and therefore

can have an impact on eating behavior. In the present study, the possible parental influences (i.e., attachment anxiety and avoidance, family food rules) that contribute to maladaptive cognitions, and the possible maladaptive cognitions (i.e., depression, negative affect, and maladaptive perfectionism) that contribute to disordered eating will be investigated. As such, unique parental influences and maladaptive cognitions will be articulated.

Method

Participants

A sample consisting of 107 female college students from the Ohio State University at Marion were used to test these hypotheses. Participants ranged in age from 18 to 28 years (average age: 19.21 years). The majority of participants identified themselves in ethnicity as Caucasian (89.7%), followed in frequency by African-American (2.8%), and Latino (2.8%). Three participants indicated an ethnic status of “other” and reported statuses indicating multiracialism. Next participants answered questions regarding current relationship status. The majority reported themselves as single (50.5%), followed in frequency by long-term relationship (40.2%), “other” (7.5%; usually reported as being engaged), and married (1.9%). Then, participants answered regarding current educational status. The majority reported themselves at freshman status (74.8%), followed in frequency by sophomore (11.2%), junior (7.5%), senior (4.7%), graduate student (.9%), and one participant listed herself as “other” (.9%). In addition, participants reported their current socio-economic status. Most participants fell into the middle class category (52.3%), while other participants (35.5%) indicated upper-middle

class, followed by working class (9.3%) and then upper class (2.8%). Data were taken from the demographic sheet presented in Appendix A.

Measures

Individual participants completed a survey consisting of questions on demographic information (age, gender, ethnic identification, relationship status, year in school, and socio-economic identification) as well as the following questionnaires: Experience in Close Relationships Scale (ECRS; Brennan, Clark, & Shaver, 1996; presented in Appendix B), Family Food Rules Scale (FFRS; Tylka & Iannantuono, 2007; presented in Appendix C), Beck Depression Inventory (BDI; Beck et al., 1996; presented in Appendix D), Positive and Negative Affect Scale (PANAS; Watson, Clark, & Tellegen, 1988; presented in Appendix E), Almost Perfect Scale-Revised (APS-R; Slaney, Mobley, Trippi, Ashby, & Johnson, 1996; presented in Appendix F), and the Eating Attitudes Test-26 (EAT-26; Garner, Olmsted, Bohr, & Garfinkel, 1982; presented in Appendix G).

The ECRS was used to measure participants' levels of adult insecure attachment. It contains 24 items that are divided into two subscales: attachment anxiety (12 even items listed in Appendix B) and attachment avoidance (12 odd items listed in Appendix B). Responses range from 1 (strongly disagree) to 4 (strongly agree). After appropriate items are reverse-scored, total scores are created by averaging its items. Higher total scores indicate higher attachment anxiety and avoidance, respectively. The ECRS subscales have shown to yield reliable and valid scores in previous samples of college students (Brennan, Clark, & Shaver, 1998). In the present study, Cronbach's coefficient alphas were .93 for anxiety subscale scores and .93 for avoidance subscale scores.

The Family Food Rules Scale was created by the authors for the purpose of this study. It contains 19 items that inquire about the extent to which participants' families set and maintained rigid rules regarding eating behavior that often go against children's internal hunger and satiety cues. Responses range from 1 (always) to 6 (never). All items are reverse-scored, and a total score is created by averaging its items. Higher total scores indicate the presence of more rigid family food rules. In the present study, Cronbach's coefficient alpha was .92 for its scores.

The BDI is a widely used behavioral checklist of depressive symptomatology. It contains 21 items. Responses range from 0 (indicative of no symptoms) to 4 (indicating the most severe symptoms), and a total score is created by averaging its items. Higher scores indicate greater depressive symptomatology. The BDI has demonstrated reliable and valid scores among college student samples (Beck et al., 1996). In the present study, Cronbach's coefficient alpha was .88 for its scores.

The negative affect subscale of the PANAS contains 10 emotion words (e.g., "irritable", "afraid", "upset") in which participants rated the degree they experience each emotion in general on a 5-point scale ranging from 1 (*very slightly or not at all*) to 5 (*extremely*). In order to retain the PANAS's integrity, the positive affect subscale was also administered to the participants, and the emotions were presented in the order specified by Watson et al. (1988). Yet, because we were more interested in exploring negative affect, only this subscale was calculated. Responses associated with the 10 negative emotion words were averaged to arrive at a subscale score, and higher scores indicate greater negative affect. Among undergraduate students, the negative affect

subscale has demonstrated reliable and valid scores (Watson & Clark, 1994; Watson et al., 1988). For the present study, Cronbach's alpha coefficient was .87 for its scores.

The APS-R maladaptive perfectionism scale contains 12 questions (questions 1 – 12 in Appendix F) that measure participants' frustration with being unable to meet their high performance standards. Item responses ranged from 1 (strongly disagree) to 7 (strongly agree). In order to retain the APS-R's integrity, the adaptive perfectionism items were also administered to the participants, and the items were presented in the order specified by Slaney, Mobley, Rice, Trippi, and Ashby (1996). Because we were interested in only exploring maladaptive perfectionism, only this subscale was calculated. Its items were averaged to arrive at a total score, and higher scores indicate greater maladaptive perfectionism. With college student samples, the maladaptive perfectionism subscale has yielded reliable and valid scores (Slaney et al., 1996). For the present study, Cronbach's coefficient alpha was .95 for its scores.

The EAT-26 contains 26 items that measure eating disorder symptomatology. Each item is rated on a scale ranging from 1 (*never*) to 6 (*always*). Subscale items were averaged to obtain a total score; higher scores indicate greater ED symptomatology. With college women, the EAT-26 has demonstrated reliable and valid scores (Mazzeo, 1999; Tylka & Subich, 2004). For the present study, Cronbach's coefficient alpha was .91.

Procedure

Students were given the opportunity to sign up to take part in this study. On whatever day was specified, students went to a classroom during the noon hour to complete the survey. They were given specific instructions to answer all items on the survey, to be honest, and to not write their names anywhere on the survey (as it was to

remain anonymous). The questionnaire packet took approximately 40 minutes to complete. After completing the survey students handed them back to the experimenter. As most of the students were enrolled in an introductory psychology class and class specifications required Psychology 100 students to take part in a certain number of research studies, the experimenter then signed off on a card to indicate that these particular students had in fact completed the survey.

Results

Descriptive and Preliminary Analyses

Measures that had more than 25% of data points missing were dropped from the study. Otherwise, missing data points were handled by substituting participants' mean scale score for the missing value. Table 1 presents the correlations, means, and standard deviations of the various measures used in this study. Disordered eating was slightly related to attachment avoidance; moderately related to attachment anxiety, negative affect, and maladaptive perfectionism; and strongly related to family food rules and depression. Overall, attachment anxiety appeared to have more substantial relationships with the study variables than attachment avoidance. Attachment anxiety was moderately related to family food rules, depression, and maladaptive perfectionism and strongly related to negative affect. Attachment avoidance was only moderately related to depression and negative affect and was not related to family food rules and maladaptive perfectionism. The presence of family food rules was moderately related to depression, negative affect, and maladaptive perfectionism. Depression was strongly related to negative affect and maladaptive perfectionism, and negative affect was moderately

related to maladaptive perfectionism. Most of these relationships were expected, given previous literature supporting the relationships among these variables.

Standard Multiple Regression Analyses

First, standard multiple regression analyses were used to determine whether the family variables (i.e., attachment anxiety, attachment avoidance, family food rules) predicted each cognitive variable (i.e., depression, negative affect, and maladaptive perfectionism). Given that there were three cognitive variables, three regression analyses were performed in this first section. In the first analysis, all three family variables were investigated to determine whether they predicted unique variance in depression.

Together, they accounted for 21.8% of the variance in depression ($F [3, 103] = 9.56, p < .001$). However, of the three individual predictors, only attachment anxiety predicted unique variance depression ($\beta = .33, t [106] = 3.66, p < .001$) as expected; contrary to hypotheses, negative affect ($\beta = .17, t [106] = 1.87, ns$) or family food rules ($\beta = .17, t [106] = 1.82, ns$) did not uniquely predict depression. In the second analysis, all three family variables were investigated to determine whether they predicted unique variance in negative affect. Together, they accounted for 36.7% of the variance in negative affect ($F [3, 103] = 19.90, p < .001$). Two individual predictors, attachment anxiety ($\beta = .48, t [106] = 5.82, p < .001$) and attachment avoidance ($\beta = .21, t [106] = 2.67, p < .01$) uniquely predicted negative affect, whereas family food rules did not ($\beta = .15, t [106] = 1.79, ns$). In the third analysis, all three family variables were investigated to determine whether they predicted unique variance in maladaptive perfectionism. Together, they accounted for 16.5% of the variance in maladaptive perfectionism ($F [3, 103] = 6.81, p < .001$). Two individual predictors, attachment anxiety ($\beta = .27, t [106] = 2.84, p < .001$)

and family food rules ($\beta = .24$, $t [106] = 2.49$, $p < .05$) uniquely predicted maladaptive perfectionism, whereas attachment avoidance did not ($\beta = .02$, $t [106] = 0.17$, ns).

Second, a standard multiple regression analysis was used to investigate whether the three cognitive variables (i.e., depression, negative affect, and maladaptive perfectionism) predicted eating disorder symptomatology. All three cognitive predictors accounted for 28.8% of the variance in eating disorder symptomatology ($F [3, 103] = 13.88$, $p < .001$); however, depression ($\beta = .27$, $t [106] = 2.29$, $p < .05$) and maladaptive perfectionism ($\beta = .24$, $t [106] = 2.33$, $p < .05$) uniquely predicted eating disorder symptomatology, whereas negative affect did not ($\beta = .13$, $t [106] = 1.19$, ns).

Discussion

The present study was a preliminary investigation of the hypothesis that maladaptive cognitions would mediate the relationship between parental influences and eating disordered symptomatology. Specifically, attachment avoidance and anxiety, as well as family food rules set by parents, were expected to predict maladaptive cognitions (i.e., depression, negative affect, and maladaptive perfectionism) which were then expected to predict disordered eating. There was initial evidence that maladaptive cognitions may partially mediate the relationship between parental influences and eating disorder symptoms. It was also noted that disordered eating was slightly related to attachment avoidance, moderately related to attachment anxiety, negative affect, and maladaptive perfectionism, and was strongly related to family food rules and depression.

First, a series of 3 regressions explored the influence of parental influences on each cognitive variable. The first regression explored whether the three parental influences (attachment anxiety, attachment avoidance, and food rules) uniquely predicted

depressive symptoms. These three variables accounted for 21.8% of the variance in depression; however, only attachment anxiety predicted unique variance in depression. These findings suggest that the attachment anxiety is the only parental influence variable that is uniquely associated with depression.

Next, another regression was undertaken to investigate whether the three parental influences incrementally contribute to the variance in negative affect. It was found that all three influences accounted for 36.7% of the variance in negative affect. Attachment anxiety and attachment avoidance predicted unique variance in negative affect. This suggests that an insecure attachment in close relationships can by itself predict negative emotions; specifically, attachment in close relationships can overshadow the contributions of food rules on negative affect when all three of these influences are examined at the same time.

Then, a third regression was performed to determine the unique associations that the three parental influences have with the final cognitive variable, maladaptive perfectionism. Findings were that all three influences account for 16.5% of the variation in maladaptive perfectionism; however, only attachment anxiety and food rules predicted unique variance in maladaptive perfectionism.

Overall, these analyses suggest that attachment anxiety in particular has unique associations with maladaptive cognitions. Attachment avoidance and the presence of family food rules also appear to contribute to maladaptive cognitions, although to a lesser degree than attachment anxiety. These findings support previous research suggesting that maladaptive family environment variables, such as insecure attachment and the presence of rigid family food rules contribute to irrational beliefs and negative affect (e.g., Fisher

& Birch, 2000; Mountford, Corstorphine, Tomlinson, & Waller, 2007; Troisi, Massaroni, & Cuzzolaro, 2005).

Next, the three cognitive variables—depression, negative affect, and maladaptive perfectionism—were viewed through one final regression to see what relationship they all had with eating disorder symptomatology. It was found that all three variables predicted 28.7% of the variance in eating disorder symptomatology; however, only depression and maladaptive perfectionism uniquely predicted ED symptomatology. These results suggest that eating disorder symptomatology is strongly related to depression and maladaptive perfectionism, and that depression is strongly related to attachment anxiety while maladaptive perfectionism is not only strongly related to attachment anxiety, but food rules as well. These findings are consistent with previous research (e.g., Miller, Schmidt, Vaillancourt, McDougall, & Laliberte, 2006) exploring the link between maladaptive cognitions and disordered eating. Yet, the present study was unique in that it found that negative affect no longer predicted eating disorder symptomatology due to its overlap with depression and maladaptive perfectionism.

Implications for Research and Therapy

First, the limited number of participants precluded more comprehensive tests of mediation. Future researchers could gather a larger number of participants and then test whether maladaptive cognitions mediate the relationship between negative family influences and eating disorder symptomatology using mediation models/structural equation modeling analyses. Also, almost all of the research done in the field of eating disorders is about women and as such, the present study had this very focus. What would be interesting is to look at next would be the same parental influences and how they

affect maladaptive cognitions in men. In therapy with eating disordered clients, a focus on parental influences and even getting parents involved in the therapy process is crucial so as to prevent the formation of maladaptive cognitions and ultimately, eating disorders. Since young adults' perceptions of their attachments with caregivers and rules that the parents use with food at home have in the present study shown to be integral parts to the formation of eating disorders, and possible assessment of the parental figures would help as well if it is at all possible.

Limitations

The limitations in the present study will be addressed. First, the participants were almost exclusively Caucasian women, and all of the women were college students which limits the generalization of results so as to exclude females of other races and females of the outside world in general. Also, for the type of statistical analysis that was originally intended for this study, there were too few participants—a total of 107 when at least 250 were needed. Furthermore, within the assessment of the parental influences, the only point of view looked at was the young female surveyed; it can be said that maybe these self-report measures are possibly focusing on the female's perception of how things are/were at home, and not how they actually are.

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Table 1

Means, Standard Deviations, and Correlations among the Measures (N = 107)

Measures	1	2	3	4	5	6	7
1. Attachment Anxiety (ECR-anxiety)	----						
2. Attachment Avoidance (ECR-avoidance)	.12	----					
3. Family Food Rules Scale	.29**	.12	----				
4. Depression (BDI)	.40**	.22*	-.28**	----			
5. Negative Affect (PANAS)	.55**	.29**	-.31**	.62**	----		
6. Maladaptive Perfectionism (APS-R)	.34**	.08	-.31**	.58**	.38**	----	
7. Eating Disorder Symptomatology (EAT-26)	.32**	.18	-.57**	.49**	.39**	.44**	----
<i>M</i>	3.85	2.88	2.45	.42	2.36	3.47	2.33
<i>SD</i>	1.27	1.41	.86	.37	.79	1.40	.67

Note. ECR = Experiences in Close Relationships scale, BDI = Beck Depression Inventory, PANAS = Positive and Negative Affect Scale (i.e., the 10 negative affect adjectives were used), APS-R = maladaptive perfectionism subscale of the Almost Perfect Scale-Revised, EAT-26 = Eating Attitudes Test-26. * $p < .05$, ** $p < .01$.

APPENDIX A

DEMOGRAPHIC INFORMATION

Demographic Information

Age: _____

Gender: _____ Female _____ Male

Ethnic Identification

_____ African American

_____ Asian American

_____ Caucasian/White

_____ Native American

_____ Latino

_____ Other: please specify: _____

Relationship status:

_____ Single

_____ Married

_____ Long term relationship

_____ Other: please specify: _____

_____ Divorced

Year in School:

_____ Freshman-or- high school senior

_____ Post-bac

_____ Sophomore

_____ Graduate student

_____ Junior

_____ Other

_____ Senior

Socio-Economic Identification

_____ Upper class

_____ Middle class

_____ Upper-middle class

_____ Working class

APPENDIX B

The following statements concern how you feel in romantic relationships. We are interested in how you generally experience relationships, not just in what is happening in a current relationship. Respond to each statement by indicating how much you agree or disagree with it. Write the number in the space provided, using the following rating scale:

1	2	3	4	5	6	7
<i>Disagree Strongly</i>	<i>Neutral/ Mixed</i>	<i>Agree Strongly</i>

- ___ 1. I prefer not to show a partner how I feel deep down.
- ___ 2. I worry about being abandoned.
- ___ 3. I am very comfortable being close to romantic partners.
- ___ 4. I worry a lot about my relationships.
- ___ 5. Just when my partner starts to get close to me I find myself pulling away.
- ___ 6. I worry that romantic partners won't care about me as much as I care about them.
- ___ 7. I get uncomfortable when a romantic partner wants to be very close.
- ___ 8. I worry a fair amount about losing my partner.
- ___ 9. I don't feel comfortable opening up to romantic partners.
- ___ 10. I often wish that my partner's feelings for me were as strong as my feelings for him/her.
- ___ 11. I want to get close to my partner, but I keep pulling back.
- ___ 12. I often want to merge completely with romantic partners, and this sometimes scares them away.
- ___ 13. I am nervous when partners get too close to me.
- ___ 14. I worry about being alone.
- ___ 15. I feel comfortable sharing my private thoughts and feelings with my partner.
- ___ 16. My desire to be very close sometimes scares people away.
- ___ 17. I try to avoid getting too close to my partner.
- ___ 18. I need a lot of reassurance that I am loved by my partner.
- ___ 19. I find it relatively easy to get close to my partner.
- ___ 20. Sometimes I feel that I force my partners to show more feeling, more commitment.
- ___ 21. I find it difficult to allow myself to depend on romantic partners.
- ___ 22. I do not often worry about being abandoned.
- ___ 23. I prefer not to be too close to romantic partners.
- ___ 24. If I can't get my partner to show interest in me, I get upset or angry.
- ___ 25. I tell my partner just about everything.
- ___ 26. I find that my partner(s) don't want to get as close as I would like.
- ___ 27. I usually discuss my problems and concerns with my partner.
- ___ 28. When I'm not involved in a relationship, I feel somewhat anxious and insecure.
- ___ 29. I feel comfortable depending on romantic partners.
- ___ 30. I get frustrated when my partner is not around as much as I would like.
- ___ 31. I don't mind asking romantic partners for comfort, advice, or help.
- ___ 32. I get frustrated if romantic partners are not available when I need them.
- ___ 33. It helps to turn to my romantic partner in times of need.
- ___ 34. When romantic partners disapprove of me, I feel really bad about myself.
- ___ 35. I turn to my partner for many things, including comfort and reassurance.
- ___ 36. I resent it when my partner spends time away from me.

APPENDIX C

FAMILY FOOD RULES SCALE

Please indicate the degree to which your parents/caregivers emphasized the following behaviors while you were growing up.

1. Told you to eat all the food on your plate.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

2. Made sure you finished all the food that was on your plate.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

3. Made you eat at times you weren't hungry.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

4. Told you not to eat something that wasn't healthy.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

5. Told you to eat all your vegetables after you told them that you didn't want to eat any more.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

6. Looked at you with raised eyebrows at how much you were eating, making you feel that you were eating too much.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

7. Commented that you weren't eating enough.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

8. Commented that you were eating too much.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

9. Made fun of you for eating too much.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

10. Made fun of you for eating too little.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

11. Told you that you couldn't eat at times you were really hungry.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

12. Told you that you shouldn't eat certain foods because they will "make you fat."

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

13. Ate at a specific time each day.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

14. Made you eat despite the fact that you were full.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

15. Put more food on your plate even though you said that you were full.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

16. Used food to reward you for good behavior.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

17. Restricted food to punish you for bad behavior.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

18. Talked about their weight.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

19. Talked about dieting or restricting certain high calorie foods.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

APPENDIX D

BECK DEPRESSION INVENTORY (BDI)

In each question, choose one statement from among the group of four statements that describes how you have been feeling during the **past few days**. Circle the number beside your choice.

Question 1

- 0 I do not feel sad.
- 1 I feel sad.
- 2 I am sad all the time and I can't snap out of it.
- 3 I am so sad or unhappy that I can't stand it.

Question 2

- 0 I am not particularly discouraged about the future.
- 1 I feel discouraged about the future.
- 2 I feel I have nothing to look forward to.
- 3 I feel that the future is hopeless and that things cannot improve.

Question 3

- 0 I do not feel like a failure.
- 1 I feel I have failed more than the average person.
- 2 As I look back on my life, all I can see is a lot of failure.
- 3 I feel I am a complete failure as a person.

Question 4

- 0 I get as much satisfaction out of things as I used to.
- 1 I don't enjoy things the way I used to.
- 2 I don't get any real satisfaction out of anything anymore.
- 3 I am dissatisfied or bored with everything.

Question 5

- 0 I don't feel particularly guilty.
- 1 I feel guilty a good part of the time.
- 2 I feel quite guilty most of the time.
- 3 I feel guilty all of the time.

Question 6

- 0 I don't feel I am being punished.
- 1 I feel I may be punished.
- 2 I expect to be punished.
- 3 I feel I am being punished.

Question 7

- 0 I don't feel disappointed in myself.
- 1 I am disappointed in myself.
- 2 I am disgusted with myself.
- 3 I hate myself.

Question 8

- 0 I don't feel I am any worse than anybody else.
- 1 I am critical of myself for my weaknesses or mistakes.
- 2 I blame myself all the time for my faults.
- 3 I blame myself for everything bad that happens.

Question 9

- 0 I don't have any thoughts of killing myself.
- 1 I have thoughts of killing myself, but I would not carry them out.
- 2 I would like to kill myself.
- 3 I would kill myself if I had the chance.

Question 10

- 0 I don't cry any more than usual.
- 1 I cry more now than I used to.
- 2 I cry all the time now.
- 3 I used to be able to cry, but now I can't cry even though I want to.

Question 11

- 0 I am no more irritated by things than I ever am.
- 1 I am slightly more irritated now than usual.
- 2 I am quite annoyed or irritated a good deal of the time.
- 3 I feel irritated all the time now.

Question 12

- 0 I have not lost interest in other people.
- 1 I am less interested in other people than I used to be.
- 2 I have lost most of my interest in other people.
- 3 I have lost all of my interest in other people.

Question 13

- 0 I make decisions about as well as I ever could.
- 1 I put off making decisions more than I used to.
- 2 I have greater difficulty in making decisions than before.
- 3 I can't make decisions at all anymore.

Question 14

- 0 I don't feel that I look any worse than I used to.
- 1 I am worried that I am looking old or unattractive.
- 2 I feel that there are permanent changes in my appearance that make me look unattractive.
- 3 I believe that I look ugly.

Question 15

- 0 I can work about as well as before.
- 1 It takes an extra effort to get started at doing something.
- 2 I have to push myself very hard to do anything.
- 3 I can't do any work at all.

Question 16

- 0 I can sleep as well as usual.
- 1 I don't sleep as well as I used to.
- 2 I wake up 1 – 2 hours earlier than usual and find it hard to get back to sleep.
- 3 I wake up several hours earlier than I used to and cannot get back to sleep.

Question 17

- 0 I don't get more tired than usual.
- 1 I get tired more easily than I used to.
- 2 I get tired from doing almost anything.
- 3 I am too tired to do anything.

Question 18

- 0 My appetite is no worse than usual.
- 1 My appetite is not as good as it used to be.
- 2 My appetite is much worse now.
- 3 I have no appetite at all anymore.

Question 19 (Circle 0 if you have been purposely trying to lose weight)

- 0 I haven't lost much weight, if any, lately.
- 1 I have lost more than five pounds.
- 2 I have lost more than 10 pounds.
- 3 I have lost more than 15 pounds.

Question 20

- 0 I am no more worried about my health than usual.
- 1 I am worried about physical problems such as aches and pains, or upset stomach, or constipation.
- 2 I am very worried about physical problems, and it's hard to think of much else.
- 3 I am so worried about my physical problems that I cannot think about anything else.

Question 21

- 0 I have not noticed any recent change in my interest in sex.
- 1 I am less interested in sex than I used to be.
- 2 I am much less interested in sex now.
- 3 I have lost interest in sex completely.

APPENDIX E

POSITIVE AND NEGATIVE AFFECT SCALE (PANAS)

This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and then write the number in the space provided next to that word. Indicate to what extent you have felt this way in general, that is, on average. Use the following scale:

Very Slightly or Not at All 1	A Little 2	Moderately 3	Quite a Bit 4	Extremely 5
-------------------------------------	---------------	-----------------	------------------	----------------

- ___1. **attentive**
- ___2. **strong**
- ___3. **irritable**
- ___4. **inspired**
- ___5. **afraid**
- ___6. **alert**
- ___7. **upset**
- ___8. **active**
- ___9. **guilty**
- ___10. **nervous**
- ___11. **excited**
- ___12. **hostile**
- ___13. **proud**
- ___14. **jittery**
- ___15. **ashamed**
- ___16. **scared**
- ___17. **enthusiastic**
- ___18. **distressed**
- ___19. **determined**
- ___20. **interested**

APPENDIX F

ALMOST PERFECT SCALE-REVISED (APS-R)

Indicate your agreement with each statement by writing the number in the space provided, using the following rating scale:

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

- ___ 1. I often feel frustrated because I can't meet my goals
- ___ 2. My best just never seems good enough for me
- ___ 3. I rarely live up to my high standards
- ___ 4. Doing my best never seems to be enough
- ___ 5. I am never satisfied with my accomplishments
- ___ 6. I often worry about not measuring up to my own expectations
- ___ 7. My performance rarely measures up to my standards
- ___ 8. I am not satisfied even when I know I have done my best
- ___ 9. I am seldom able to meet my own high standards for performance
- ___ 10. I am hardly ever satisfied with my performance
- ___ 11. I hardly ever feel that what I've done is good enough
- ___ 12. I often feel disappointed after completing a task because I know I could have done better
- ___ 13. I have high standards for my performance at work or school
- ___ 14. If you don't expect much out of yourself you will never succeed
- ___ 15. I have high expectations for myself
- ___ 16. I set very high standards for myself
- ___ 17. I expect the best from myself
- ___ 18. I try to do my best at everything I do
- ___ 19. I have a strong need to strive for excellence
- ___ 20. I am an orderly person
- ___ 21. Neatness is important to me
- ___ 22. I think things should be put away in their place
- ___ 23. I like to always be organized and disciplined

APPENDIX G

EATING ATTITUDES TEST-26

1. I am terrified about being overweight.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

2. I avoid eating when I am hungry.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

3. I find myself preoccupied with food.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

4. I have gone on eating binges where I feel that I may not be able to stop.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

5. I cut my food into small pieces.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

6. I am aware of the caloric content of foods that I eat.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

7. I particularly avoid foods with high carbohydrate content.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

8. I feel that others would prefer I ate more.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

9. I vomit after I have eaten.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

10. I feel extremely guilty after eating.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

11. I am preoccupied with a desire to be thinner.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

12. I think about burning up calories when I exercise.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

13. Other people think that I am too thin.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

14. I am preoccupied with the thought of having fat on my body.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

15. I take longer than others to eat meals.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

16. I avoid foods with sugar in them.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

17. I eat diet foods.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

18. I feel that food controls my life.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

19. I display self-control around food.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

20. I feel that others pressure me to eat.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

21. I give too much time and thought to food.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

22. I feel uncomfortable after eating sweets.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

23. I engage in dieting behaviors.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

24. I like my stomach to be empty.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

25. I enjoy trying new rich foods.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

26. I have the impulse to vomit after meals.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never